To: McVickar, Leslie[Mcvickar.Leslie@epa.gov]; Chu, Liyang
Ex. 6 - Personal Privacy
From: Hewett, Rebecca L
Sent: Mon 3/27/2017 9:22:23 PM
Subject: RE: Keddy Mill - Groundwater and soil PFAS data
PFC_ScreeninigLevels_September_2016.pdf

H Leslie & Liyang,

Regarding Maine standards for PFCs, Maine CDC sent out a memo, dated 8/17/2016 "Human Health Risk-Based Screening Levels for Perfluoroalkyl Compounds" for soil, sediment, groundwater & fish tissue. I have attached a copy of the memo above so that you have the current SL Maine is using.

From my review (I believe that I converted units correctly to results to Maine SLs), the outcome is the same – PFCs results at the site (soil & groundwater) do not exceed Maine's SLs. If you have questions, give me a call.

Rob & I don't have any comments on the data submitted. Also, I sent the data to Pam Wadman (ME CDC) – no feedback from her to-date.

Becky

From: McVickar, Leslie [mailto:Mcvickar.Leslie@epa.gov]
Sent: Thursday, March 23, 2017 10:16 AM
To: Hewett, Rebecca L
Subject: Fw: Keddy Mill - Groundwater and soil PFAS data
Importance: High

Leslie McVickar. Project Manager

US EPA, 5 Congress Street, Suite 100, OSRR07-4

Boston, MA 02109-3912 617-918-1374 617-755-0051 (cell)

From: Liyang Chu < **Ex. 6 - Personal Privacy**
Sent: Tuesday, March 21, 2017 1:26 PM
To: McVickar, Leslie
Subject: Keddy Mill - Groundwater and soil PFAS data

Leslie,

Attached are drafts of six tables that detail the groundwater and soil PFAS data. The tables present every sample, but not all samples were analyzed for PFAS (so that accounts for the "NAs").

The tables and quick synopses:

PF-1: Groundwater, Round 1, Overburden – 1 detect in 1 overburden well sample, only 7 ug/L PFOS. (below the current total PFOA/PFOS goal of 70 ng/g)

PF-2: Groundwater, Round 1, Bedrock – 1 detect in 4 bedrock well samples, only 6.5 ug/L PFHxA detected (no PFOA or PFOS).

PF-3: Groundwater, Round 2, Overburden – 0 detects in 9 overburden wells.

PF-4: Groundwater, Round 2, Bedrock - 0 detect in 6 bedrock well samples

PF-5: Soil, Surface – Detects in 5 out of 21 samples. 3 detects of PFHxA (5.3 ng/g max) and 4 detects PFOS (3.9 ng/g max.). PFOS is well below Maine RES RAG of 11,000 ng/g.

PF-6: Soil Subsurface - Detects in 5 out of 24 samples. 3 detects of PFHxA (1.9 ng/g max), 1 detect of PFOS (1.5 ng/g max.), & 1 detect of Perfluoropentanoic Acid (at 1.1 ng/g). The PFOS is well below Maine Res. RAG of 11,000 ng/g.

In summary, only trace concentrations of a few PFAS chemicals detected in on-site surface and subsurface soil samples. For Round 1 groundwater samples (Aug/Sep 2016), only 1 PFAS detected at low concentrations. No PFAS detected in any Round 2 (Nov. 2016)overburden or bedrock samples.

The soil and groundwater PFAS data indicate almost no PFAS presence in the majority of samples collected during the RI. Therefore, it is reasonable to conclude that there are no sources of PFAS in the soil. However, no information is available for soil underlying the mill buildings' footprint. PFAS presence in groundwater is minimal and does not exceed the Maine RAGs for residential or construction worker exposure scenarios (for PFOA or PFOS). If PFAS is present in soil under the building footprint, removal of the building will expose those soils resulting in PFAS mobility.

Should you need figures depicting PFAS, these can be prepared, but will take a few days.

These tables are draft, and will incorporate the following information at the end of each table.

Data Source: Remedial Investigation (RI) data collected by Nobis Engineering, Inc. in 2016.

Abbr:

-- Not Applicable

NS - No Standard

RSLs - EPA Regional Screening Levels, May 2016

RAGs - Maine Remedial Action Guidelines, Feb. 2016

Value with Colored Cell - Criterion Exceeded

Bold - detect

Please let me know if you need anything else.

Liyang Chu
Senior Project Manager

Ex. 6 - Personal Privacy

Nobis Engineering, Inc.
585 Middlesex Street
Lowell, MA 01851

Client-Focused, Employee-Owned
www.nobiseng.com

Follow Nobis:

Ex. 6 - Personal Privacy